

**ABSTRACT**

A contact (160) is formed by depositing a conductive liner (130), treating the liner (130) with hydrogen, depositing a conductive barrier (140), and filling the contact hole (120) with a metal (150). Hydrogen treatment improves contact resistance and adhesion between the liner (130) and barrier (140). The hydrogen treatment may be a hydrogen plasma treatment and may be performed one or more times during contact formation such as after contact etch, after liner deposition, during liner anneal, after liner anneal, or after barrier deposition.

TI-31858-130001